

does not disclose this step and does not even hint at doing anything like it.

Firstly, it should be noted that the present invention relates to a "fine" control of the pressure between the sealing belt and the film material. Although Fukuda says that this pressure can be controlled by means of the servo motor 45 (column 6, lines 48-51), the "control" in this context is a "rough" kind of control, that is, a totally different kind of control. This should be clear from Fig. 8 which shows the servo motor 45 serving to "control" both the motion of the pull-down belts 30 and that of the seal belt 55 at the same time. There is an air cylinder 78 between the servo motor 45 and the seal belt 55 in this motion-communicating system but this air cylinder 78 is intended to serve only to cause the seal belt to come into contact with the film material S and to be retracted therefrom. The universal joint 68 is for further removing the seal belt 55 from the vicinity of the film material S, say, for a maintenance work. In other words, neither the servo motor 45 nor the air cylinder 78 is adapted to carry out a fine control of the pressure between the seal belt 55 and the film material S. Claim 24 specifically says that the longitudinally sealing heater unit is pushed against the film at a specified sealing pressure. Fukuda does not relate to such kind of fine control of the pressure.

The Examiner points to Fukuda's statement that different combinations of motion-communicating and torque-communicating means can be substituted, but this statement should not be interpreted as saying that all such different means are obvious. After a propeller airplane was initially invented, if someone had said that any other means for causing the machine to fly might be substituted, this would not make a helicopter or a jet airplane obvious.

The Examiner cited Grimshaw for disclosing the step of controlling an air cylinder by variable pressure for controlling the compressive force of an element against another, but how does the Examiner expect Grimshaw's method to be incorporated in Fukuda's method? Firstly, Fukuda is not talking about the kind of "fine" control on the pressure between the seal belt 55 and the film material S and hence there is no motivation for such incorporation. Even if Grimshaw were forced upon Fukuda, there would still remain the question of how Grimshaw's apparatus can be incorporated into Fukuda's apparatus such as shown in Fig. 8.

The Examiner seems to be suggesting in page 3 at lines 4-5 of the Official Letter that

the communication means of the servo motor 45 be replaced with an additional cylinder, but the communication means of the servo motor 45 includes not only the universal joint 68, the screw 59, the air cylinder 78 and the seal belt 55, but also the turnbuckle 46, the bearings 44 and the pull-down belts 30. Replacing all these components of Fukuda with the Grimshaw's apparatus would result in something grotesque and not even remotely resembling the apparatus of the present invention because Grimshaw's air cylinder would then be functioning to cause both the pull-down belts 30 and the seal belt 55 Fukuda's Fig. 8. It is not clear or apparent at all how Grimshaw's method can be applied to Fukuda.

In summary, the idea of, wish for, and need for "controlling said lower pressure to cause said heater unit to longitudinally seal said bag-making material at a specified sealing pressure" (last two lines of claim 24) were absent in Fukuda and hence there was no reason for Fukuda to look to Grimshaw and even if the Grimshaw's apparatus and method were incorporated into the apparatus and method of Fukuda, the method as stated in claim 24 would not have resulted readily, as explained above. Thus, it is believed that claim 24 and all claims dependent therefrom are non-obvious in spite of the teaching by both Fukuda and Grimshaw and the rejection of claims 24-30 should be reversed.

Respectfully submitted,



Keiichi Nishimura  
Registration No. 29,093

June 24, 2003  
BEYER WEAVER & THOMAS, LLP  
P.O. Box 778  
Berkeley, CA 94704-0778  
Telephone: (510) 843-6200  
Telefax: (510) 843-6203